

1 IN THE CLAIMS

2 Please cancel claim 6.

3 Please amend the claims as follows:

4 {MARKED-UP VERSION OF THE AMENDED CLAIMS}

5 --1.(AMENDED) An apparatus for transporting ions from [a first pressure] an ionization
6 source region to a [second] first pressure region within a mass spectrometer, wherein said
7 apparatus comprises:

8 first and second capillary sections each having an inlet end and an outlet end; and

9 a union having first and second openings, said union configured to removably

10 interface said first and second capillary sections such that ions may be

11 delivered into said mass spectrometer;

12 [wherein said outlet end of said first capillary section is removably positioned within said
13 first opening of said union, and wherein said inlet of said second capillary section is removably
14 positioned within said second opening of said union]

15 wherein said union comprises a sealing mechanism for sealing the connection between
16 said ionization source region and said first pressure region of said mass spectrometer.

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18 6.(AMENDED) An apparatus according to claim 1, wherein said apparatus [ions are
19 transported from an ionization source into a] maintains pressure conditions in said first [vacuum]
20 pressure region of [a] said mass spectrometer.

1 7.(AMENDED) An apparatus according to claim [6]1, wherein said ionization source is an
2 API source.

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4 8.(AMENDED) An apparatus according to claim [6]1, wherein said ionization source is an
5 ESI device.

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7 9.(AMENDED) An apparatus according to claim [6]1, wherein said ionization source is a
8 pneumatic assisted electrospray source.

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10 10.(AMENDED) An apparatus according to claim [6]1, wherein said ionization source is an
11 electron impact source.

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13 11.(AMENDED) An apparatus according to claim [6]1, wherein said ionization source is a
14 chemical ionization source.

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16 12.(AMENDED) An apparatus according to claim [6]1, wherein said ionization source is a
17 matrix assisted laser desorption ionization source.

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19 13.(AMENDED) An apparatus according to claim [6]1, wherein said ionization source is a
20 plasma desorption source.

1 14.(AMENDED) An apparatus according to claim [6]1, wherein said ionization source uses
2 liquid chromatography.--
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1 {CLEAN VERSION OF THE AMENDED CLAIMS}

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2 --1. An apparatus for transporting ions from an ionization source region to a first pressure
3 region within a mass spectrometer, wherein said apparatus comprises:
4 first and second capillary sections each having an inlet end and an outlet end; and
5 a union having first and second openings, said union configured to removably
6 interface said first and second capillary sections such that ions may be
7 delivered into said mass spectrometer;
8 wherein said union comprises a sealing mechanism for sealing the connection between
9 said ionization source region and said first pressure region of said mass spectrometer.

Cancelled
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11 6. An apparatus according to claim 1, wherein said apparatus maintains pressure conditions
12 in said first pressure region of said mass spectrometer.

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14 7. An apparatus according to claim 1, wherein said ionization source is an API source.

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16 8. An apparatus according to claim 1, wherein said ionization source is an ESI device.

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18 9. An apparatus according to claim 1, wherein said ionization source is a pneumatic assisted
19 electrospray source.

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21 10. An apparatus according to claim 1, wherein said ionization source is an electron impact
22 source.

11. An apparatus according to claim 1, wherein said ionization source is a chemical ionization source.

12. An apparatus according to claim 1, wherein said ionization source is a matrix assisted laser desorption ionization source.

13. An apparatus according to claim 1, wherein said ionization source is a plasma desorption source.

14. An apparatus according to claim 1, wherein said ionization source uses liquid chromatography.--

1 Please add the following new claims:

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3 --16. A system for performing mass spectrometric analysis, wherein said system comprises:

4 at least one ion source for producing ions;

5 a mass spectrometer having an inlet orifice configured to accept the ions; and

6 a multiple part capillary device configured to provide a removable interface

7 between said ion source and said mass spectrometer;

8 wherein said removable interface maintains pressure conditions of said mass
9 spectrometer.

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11 17. A system according to claim 16, wherein said multiple part capillary device comprises:

12 a first capillary section including an inlet orifice for accepting ions from said ion
13 source;

14 a union for connecting to at least said first capillary section;

15 a second capillary section connected to said union; and

16 a sealing mechanism for sealing said removable interface between said ion source
17 and said mass spectrometer.

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19 18. A system according to claim 17, wherein at least one of said first and second capillary
20 sections comprises a channel having a helical structure.

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cont'd
19. A system according to claim 17, wherein at least one of said first and second capillary sections is insulating.

20. A system according to claim 17, wherein at least one of said first and second capillary sections is metallic.

21. A system according to claim 17, wherein at least one of said first and second capillary sections comprises a flexible tube.

22. A system according to claim 17, wherein at least one of said first and second capillary sections comprises a heated capillary tube.

23. A system according to claim 16, wherein said at least one ion source is selected from the group consisting of an electrospray ion source, an atmospheric pressure ionization source, a matrix-assisted laser desorption/ionization ion source, a pneumatic assisted electrospray source, an electron impact source, a chemical ionization source, a plasma desorption source and a liquid chromatography source.

24. A system according to claim 16, wherein said mass spectrometer is selected from the group consisting of a quadrupole mass spectrometer, a time-of-flight mass spectrometer, an ion trap mass spectrometer, an ion cyclotron resonance mass spectrometer, and a magnetic sector mass spectrometer.

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1 25. A method for performing mass analyses using at least one mass spectrometer, wherein
2 said method comprises the steps of:
3 generating ions in an ion source region;
4 delivering said ions from said ion source region into a first pressure region of said
5 at least one mass spectrometer via a multiple part capillary device for
6 providing a removably interface between said ion source region and said
7 mass spectrometer while maintaining pressure conditions of said first
8 pressure region of said mass spectrometer; and
9 performing at least one mass analysis on said ions in said at least one mass
10 spectrometer.
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12 26. A method according to claim 25, wherein said ions are generated in said ion source
13 region using a source selected from the group consisting of an electrospray ion source, an
14 atmospheric pressure ionization source, a matrix-assisted laser desorption/ionization ion source,
15 a pneumatic assisted electrospray source, an electron impact source, a chemical ionization
16 source, a plasma desorption source and a liquid chromatography source.
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18 27. A method according to claim 25, wherein said mass analysis is performed using a mass
19 analyzer selected from the group consisting of a quadrupole mass analyzer, a time-of-flight mass
20 analyzer, an ion trap mass analyzer, an ion cyclotron resonance mass analyzer, and a magnetic
21 sector mass analyzer.--
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